

PRESENTATION FRETWORK DESIGN WITH THIS NUMBER.

Hobbies

• A Weekly Journal •

For Amateurs of Both Sexes.

No. 2. VOL. I.

OCTOBER 26, 1895.

ONE PENNY.

Fretworking and Inlaying in Wood.

Photography for Amateurs.

Hobbies that Pay.

Stamps and Stamp Collecting.

The Magic Lantern, and how to make the Slides.

Bazaars and how to Decorate them.

An Electric Scarf Pin.

Cycling, Football, and Athletics.

Decorative Use of Waste Material,—Mosaic.

Venetian Ribbon or Bent Iron Work.

Weekly Presentation Design.

Prize Competitions, Correspondence, Etc.

STAMPS

Week by Week.

A Philatelic Causerie by PERCY C. BISHOP,

Joint Editor of the "STAMP COLLECTORS' FORTNIGHTLY;" *Ex-Editor of* "THE PHILATELIC JOURNAL"
and "PHILATELIC REVIEW OF REVIEWS;" *Founding Member of the* LONDON PHILATELIC CLUB.

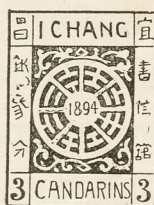
*. In future numbers of *Hobbies* the Philatelic Editor will reply to any queries applying to his department. Letters enclosing stamps for examination or valuation should be accompanied by a stamped and addressed envelope, and all communications should be directed to the Stamp Editor, "HOBBIES," BOUVIERIE HOUSE, SALISBURY SQUARE, LONDON, E.C. Other regular features of the stamp column will be a weekly list of new issues (illustrated), and, if practicable, a stamp exchange for the convenience of readers having duplicates to dispose of.



REGARDING the Society for the Suppression of Speculative Stamps, of which some particulars were given in last week's *Hobbies*, I may say that it has already done enough of good work to justify its own existence. Some four or five circulars have been issued by the Executive Committee denouncing a large number of postal issues as being "made for sale to collectors" rather than to supply any legitimate postal need. The stamps thus condemned include all the Chinese Local stamps, with the exception of those of Shanghai, and the stamps of Brunei. Clipperton Island, Buzzahir, Portugal (St. Antoine Commemoration issue), Principality of Trinidad, &c., &c. The Chinese Locals, which have thus been condemned, *holus bolus*, are



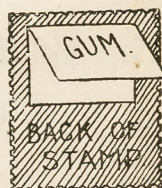
barless other Chinese ports. I give an illustration of an Ichang stamp, which may be taken as a fair sample of the artistic merits of the whole. Not in Ichang, nor in Chefoo, nor in any of the other ports is there any pretence at



a proper postal administration. The whole thing is a gigantic swindle, in which the Philatelist has played the ridiculous part of dupe. I have illustrated also the stamps of Brunei, which are equally worthless in the eyes of a Philatelist, being mere locals like the highly coloured labels that emanate so plentifully from Tromsø and other parts of Norway. Of other stamps denounced by the S.S.S.S. I shall give illustrations in due course in order that the Philatelic readers of *Hobbies* may know what to avoid when selections of stamps are shewn them or sent to them on approval.]

HOW TO MOUNT STAMPS.

There is much more in the process of sticking stamps in one's album than the Non-Philatelist would suppose. Time was when a penny bottle of gum and a penny camel's hair brush supplied the Philatelist's wants in this direction; but we have long since changed all that. We no longer smear the back of our stamps over with gum and then press them down in our albums as if our lives depended upon the amount of "elbow grease" we put into the work. We take what is known technically as a "hinge"—a small square of very thin paper, gummed on one side—and apply this to the stamp in the manner shown in the annexed engraving, part of the gummed surface being fixed to the stamp-back and the remaining part to the space in the album intended for the stamp's reception. When this is done it will be seen that the square of gummed paper well deserves its name, for it is in reality a "hinge" upon which the stamp may be turned backward or forward. The advantages of the hinging system are many and manifest. In



the first place, if good quality "hinges" are used, the stamp may be at any time removed from the album, or transferred from one page to another without being a whit the worse for it. Again, the hinge enables the owner of the stamps to examine the watermarks on the back. This brings me to the subject of

WATERMARKS AND HOW TO EXAMINE THEM.

The watermarks found upon stamps, or more properly speaking, in the paper upon which the stamps have been printed, are many and various. They consist of such devices as crowns, crosses, anchors, elephants, flowers, and fruits; sometimes merely of a group of letters, or of a large numeral indicative of value. How to detect indistinct watermarks is a problem that puzzles many a young collector; and it must be borne in mind that as I am probably addressing, through the medium of *Hobbies*, an audience composed of both old and young, I must necessarily make myself "understood of the people."

When ordinary means fail, a handy help to the detection of watermarks is a rectangular piece of card, with a hole of about the size of an average stamp cut in it. If this is held (as shown in the engraving) before a strong light, with the stamp of the unknown watermark fitted to the square hole, the chances of detecting the watermark will be largely improved. The explanation is simple. The effect of the small hole is to concentrate not only the light, but also the eyesight on that one spot. I have tried this plan many a time with old Queenslands and New Zealanders, and always with marked success.

But there are some very bad cases in which even this scheme would prove unsuccessful. The only thing for such mysterious specimens is to place them face downwards upon some hard black material (a flat piece of vulcanite, if you can get it) and then "paint" the back of the stamp with some weak benzine, handling the benzine (I need hardly say) with extreme care. Directly the benzine is applied the watermark is thrown up with startling clearness. I have never known the plan to fail.

SOME NEW ISSUES OF STAMPS.

*. Items for this department will be gratefully received from any Philatelic readers who happen to receive early information of new issues, or of impending changes in the postal arrangements of any country.

BRAZIL.—An addition has been made to the unpaid letter series of this country in the shape of a stamp of 2,000 reis, red brown.

BRITISH EAST AFRICA.—Consequent on the cession of this territory to the British Government, certain of the stamps issued by the British East Africa Company have been surcharged with the words "British East Africa." So far as my information goes, the stamps of $\frac{1}{2}$ anna, 1 anna, and 8 annas, and the registration envelope of 2 annas are all that have been thus treated.

CUBA.—It is necessary to warn collectors against a spurious set of stamps reported to be

issued for the "Republic of Cuba." Of course there is no Republic of Cuba—yet! The stamps are issued by the insurgents in the rebellion now in progress, perhaps as a means of replenishing the war-chest. They are five in number, and the values are 1, 5, 10, 20, and 50 cents. de peseta; but the design I cannot describe for the simple reason that I have not yet seen these rebel stamps.

PARAGUAY, having run short of a 5 cents. stamp, the 7 cents. has been surcharged with a large "5" and the word "provisorio."

TRANSVAAL.—A suspicious quantity of "provisionals" come from this State. The latest are $\frac{1}{2}$ d. (carmine surcharge) on 1s. green; 1d. (green surcharge) on 2 $\frac{1}{2}$ d. mauve, and a 6d. fiscal stamp surcharged "postzegel" to make it available for ordinary postal purposes.

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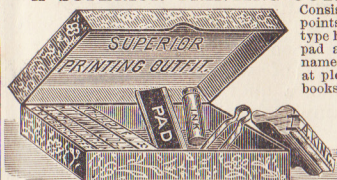
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AN UNLUCKY PHOTOGRAPHER.—Mr. H. Norman Rossel recently experienced an unpleasant adventure in Australia, where he went two or three years since. A short time ago he went touring up the Darling river in a steam launch, with the intention of taking photographs of the beautiful scenery. One night, whilst at anchor, the launch sprang a leak, and he and a companion who was with him only just managed to get ashore in time before the boat sank in ten feet of water. They lost nearly all their clothes, together with their photographic outfit.

.. FRETWORKING .. SCROLL-SAWING, INLAY AND OVERLAYING

CHAP. II.—AT WORK.

DRILLING.



THE operation of Drilling may seem a comparatively simple matter, but readers who have done much in Fretwork will know by experience that there can be such a thing as *carelessness* in boring a hole, and that the result may be unsatisfactory.

Those who happily possess a Treadle Machine—which invariably has a Drilling Attachment—have little to complain of; but those who still use the Hand Saw will find a small Archimedean Drill the most effective.

In boring the danger comes in when one tries to do the work hurriedly. A heavy thrust, if it does not split the wood entirely, will produce a very ragged under edge. This may do little harm when the interior part to be cut out is of any size; but if the piece is small, slight want of care may do considerable damage. This advice should be kept in mind when 3-ply wood is used. A beginner will go and drill roughly, split the under veneer, and then write to Messrs. So-and-so to say that the last parcel of Fretwood was of very inferior quality, and that if it should occur again, etc., etc.—when all the time the fault is his own.

In Drilling, the hole should be bored near the place where it is intended to begin cutting. There is little to be gained by sawing across an inch and a half of wood, when an eighth or a quarter of an inch is ample; so the holes should be drilled accordingly.

CUTTING.

As everyone knows, the cutting should begin at a corner—that is to say, when there happens to be a corner. And where there is a projecting corner (see Fig. 1) it should always be chosen. Thus when the piece is cut out, it cannot be seen where the Saw began its work.

With some Fretwork Patterns it is advisable to saw the outline first; with others, to cut out the interior parts. As only a general recom-



FIG. 1.

mendation can here be



FIG. 2.

its smallest limit, and the rest of the sawing will proceed more smoothly. Again, when the interior parts have first been cut out, and when there is much surplus wood round the Pattern, it is difficult to saw an elaborate outline without breaking off some delicate part. In all this, however, experience is the only true guide, as so many minor circumstances have to be taken into consideration.

PLURAL CUTTING.

Those who use Treadle Machines may save a great deal of labour by cutting more than one piece at a time. Some amateurs do not shrink from nailing six or eight pieces of wood together, and actually sawing through material an inch or an inch and a half thick. But on the whole, unless a Fret Machine is in good order, runs steadily and smoothly, and always keeps the Saw blade working at right angles to the tilting table, a less ambitious attempt is recommended.

If the blade is running even slightly off the straight, the natural result is that the piece which is cut out from the undermost bit of wood is either somewhat larger, or somewhat smaller than was intended; and thus, when the work is finished, the irregularity of the lower pieces will be very apparent.

made, this is another matter for individual judgment. The two simple Photograph Frames (Figs. 2 and 3) illustrate this point. If the outline is delicate, as in Fig. 2, it should decidedly be left till the end. But if not liable to get damaged, as in Fig. 3, it should be taken first. A large board of wood is always awkward to work, and by cutting the outline it is at once reduced to



FIG. 3.

The total thickness which may be sawn depends on the actual wood used, and on the thickness of each piece. No one for instance enjoys sawing a heavy bit of Ebony. And solid Rosewood and Bird's Eye Maple are so hard, tough, close grained, and often gritty, that there is a disastrous slaughter of Saw blades if an attempt is made to cut beyond half an inch in thickness.

The Hand Saw worker should seldom aspire to cut more than two articles at a time; and the ordinary Treadle Machine amateur need never be ashamed to confess that he has only done *three* pieces of three-sixteenths inch wood, or *four* of one-eighth inch at one cutting.

Many readers will undoubtedly prefer the old plan of sawing one piece at a time. The work seems to progress more quickly, and there is an indescribable satisfaction in tearing through the wood like a northern express. On the other hand there is a counter advantage; the sawing may indeed be slower, but the more moderate pace encourages extra care—a virtue in Fretwork which ought never to be despised.

Besides, although the actual cutting takes longer, time is undoubtedly saved; and if the pleasure which lightning speed affords is sacrificed, patience and forbearance are amply rewarded when the four or five pieces are finally separated, and when the time which single cutting would have taken is duly reflected upon.

The different pieces should be strongly nailed together. The tighter they are the easier can they be cut, and less filing and trimming of edges will afterwards be required. To prevent the lowest piece from having a ragged edge, a sheet of thin paper is sometimes pasted over it. This no doubt assists, but the paper should not be tough or thick, as it would dull the edge of the Saw blade.

When the Pattern has been transferred to the top piece, wire nails should be driven through almost every one of the interior parts which are to be cut out. The economical amateur need not stand aghast at this extravagant suggestion. Wire nails cost from threepence to sixpence per thousand, and those employed in this way need not be wasted. They can easily be extracted afterwards, and used for the same purpose again.

SAW BLADES.

In the selection of Saw blades each Fretworker has his own particular taste. "Griffin's," the "Record," and the "Star" are perhaps the favourites, but others are also patronised. A new Saw, the "Swift," just launched into the market, is an excellent article, and promises soon to completely eliminate the "Star." It is mere human nature to prefer a blade which does not break easily, but as some workers are much harder on their Saws than others, it is difficult to state exactly how long one should last. Occasionally, a single blade may serve for hours, and sometimes three or four will be broken in as many minutes.

Many Saw blades are broken through the clamps being insufficiently screwed; most of them collapse at some sharp corner. The former difficulty is easily overcome; and in the latter, if the Saw is kept moving, *though not*

actually cutting, while the wood is slowly turned round, any corner may be safely passed.

Saw blades, however, *will* break. Everyone finds this, and there can be no exception to the rule. Dozens and dozens must be gone through, and no matter how depressing the thought may be, every Fretworker must become reconciled to it.

When heavy woods are being cut, or when a number of pieces are being sawn together, it is advisable to pour a drop of oil occasionally on the Saw blade. Material such as Rosewood or Ebony invariably requires this. The Saw should never be allowed to work so quickly that it will burn the wood. Many amateurs seem to enjoy the smell of burning when at work, but the practice should be condemned, as not only are the Saws more easily broken, but the appearance of the Fret-cut edge is spoiled by charring.

The fineness of Saw blade is so much a question of taste that any directions are of scanty value. For Inlaying, or delicate Overlaying, fine Saws are absolutely necessary; and for large open work a heavy blade will do its duty quickly and satisfactorily. But for a general, serviceable, all-round Saw, one on the fine side of medium (the phrase is expressive though not brilliant) can be confidently recommended. The best plan for a beginner is to try several varieties, and then fix on the particular one which he finds most useful for his purpose.

(To be continued.)

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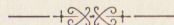


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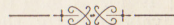
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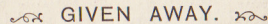
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CHAP. II.—THE INCANDESCENT GAS BURNER.

MANY experiments have been made with the Welsbach Incandescent Gas Burner, and with more or less success. The extreme fragility of the "mantle" was at one time considered to be an insurmountable difficulty, but that has been overcome, in the first place because the "mantles" sent out now will stand much rougher handling than those made a couple of years ago, and secondly because of the very complete mechanical adjustments that are now obtainable, and which can be fitted to almost any form of Lantern.

Mr. John A. Hodges, an accepted authority upon all matters appertaining to the Lantern, has recently contributed an article to a contemporary, in which he sets out his experience. Mr. Hodges says:—"The adoption of the burner for the Optical Lantern will be appreciated by many who will not use an oil Lantern and have not the conveniences for the limelight. In fact, a suitable illuminant for the Lantern other than limelight or paraffin—sufficiently powerful to give a well-lighted disc of small dimensions—has until recently been a desideratum. I do not know to whom the credit is due of first suggesting the use of the Welsbach incandescent gaslight for projection purposes in the optical Lantern—the idea probably occurred simultaneously to a great many minds—but the fact remains that although a good many people have been so using it for a long time past, it is only comparatively recently that public attention has been drawn to the matter."

"The Welsbach incandescent gaslight has now become so popular that a detailed description of it is almost unnecessary. The principle upon which the light is obtained is entirely different from that found in any other form of gaslight. The burner is an atmospheric one—a Bunsen burner, in fact, giving of course a heating but non-luminous flame, the light being produced by suspending within it (or rather over the flame) a mantle which at once becomes incandescent and produces a brilliant, intense, and highly actinic light."

"Not having two Lanterns with condensers and objectives (lenses) of similar focus at hand,

I was therefore unable to throw two discs upon the screen at the same time, or to adopt the more scientific method of lighting half of one disc with each illuminant, shutting off the light from half of each condenser by means of opaque screens."

We give these details of Mr. Hodges' experiments because we think many readers of *Hobbies* would like to experiment for themselves with the incandescent gas burner, as we shall show that there is no difficulty in adjusting the same to an ordinary Lantern, although, as we shall also show, attachments for the purpose are to be obtained of most makers of Lanterns and many photographic dealers. But to continue the account of Mr. Hodges' experience he says:—

"The Lantern used was an ordinary mahogany bodied, fitted with a 4-inch condenser, the only special feature about it being the objective, which was a Ross portrait lens of 8-inch focus. The lamps against which I compared the incandescent gaslight were Stocks' patent and a cheap commercial three-wick oil lamp. The former is a very perfect example of the parallel wick lamp, having four 2-inch wicks, and if any of its rivals equal it, certainly none surpass its good points. I usually throw a 5 foot disc when using a Lantern at home, preferring a moderate-sized disc well illuminated to a larger one and a poorer light—for any ordinary-sized room a 5 foot disc is ample. I have not yet referred to a very important matter, and that is the colour of the light. In this respect the incandescent gaslight has a very marked advantage over the best oil light yet introduced, the one being far whiter and purer than the other, in fact, resembling limelight, though, of course, not in intensity. This characteristic, the whiteness, to a large extent compensates for any comparative inferiority in intensity. A further very marked advantage of the incandescent gaslight as compared with oil is the evenness of illumination over the whole disc. Everyone who is familiar with the use of oil lamps knows how the illumination falls off towards the margin of the disc, and how impossible it is to avoid dark shadows and flickering in the centre."

"With the incandescent gaslight such defects are however entirely absent, the whole of the disc being uniformly lighted from centre

to margin with a steady pure white light with no perceptible movement or shadow in the centre."

This fact makes the light specially valuable for other purposes than the projection of Lantern Slides, and the use of the incandescent gas burner in the enlarging Lantern, of which we shall have something to say later on, appears to be one of the best uses. Photographically, that it can be put to. Again, in these days, Lantern Slides are frequently shaded to beautiful warm sepia tones—many of them most delicate—which when projected by a yellow light entirely lose their beauty; this is very apparent when such Slides are shown by the ordinary oil lamp and afterwards by lime-light. It has become necessary to have a different ratio of density in Slides for exhibition by oil lamp and limelight. A Slide which will give the best results, optically, by the former will be a poor weak wasty thing when shown by the latter, and for the same reason a Slide of sufficient density to give a good picture by limelight projection will be almost useless in the oil Lantern. Our readers will be looking out for the practical application of the incandescent system; upon this Mr Hodges continues:—

"In regard to fitting very little adaptation is necessary. The Incandescent Gaslight Company undertake to adapt the light to any existing form of Lantern. There is one point, however, to which attention must be paid in order to get the best results—precautions must be taken to prevent the escape of stray light from the Lantern by providing a chimney with a light trapped top and covering in the open space on the roof of the Lantern with tin or Russian iron. Light escaping from the back can be blocked out in the same way, or with a velvet curtain; unlike the case of the oil-lamp there will be no danger of an explosion by impeding ventilation. The heat radiated is very trifling, the chimney even may be touched with the fingers without burning them, although the burner may have been alight for some time."

"It is necessary to get a good pressure of gas from the main; it will not do to slip the india-rubber tube connection over an ordinary gas burner. The nipple must be first unscrewed or the pressure will be insufficient."

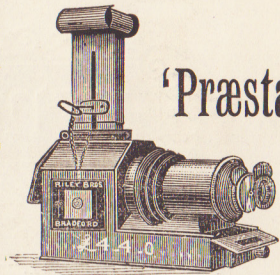
With regard to the fragile nature of the mantle, Mr. Hodges seems to have used his Lantern many times, to have carried it up and downstairs, and to have subjected it to the usual rather rough handling that a Lantern gets in the course of manipulation, without the least ill result to the mantle; and even if the mantle should be rendered useless the expense of a new one is not great, and can be attached in an instant.

There are many things in favour of the more general use of the Incandescent gas burner in the optical Lantern—freedom from smell or risk of explosion, portability, intense white light, evenness of illumination, and above all, entire relief from anxiety as to the light "giving out." With the incandescent gas burner, as it requires so little attention, the lecturer can himself manipulate, or can safely leave the Lantern in charge of the assistant who inserts the slides.

(To be continued.)

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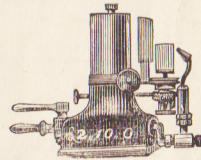
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BENT IRON WORK

CHAP. II.—CURVES AND FORMS.

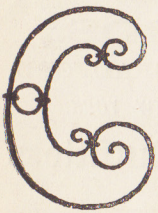


FIG. 7.

URVE forms are of four varieties—the Circle, the Oval, the C Curve, and the S Scroll (Figs. 7, 8, 9, and 10). If the V-shaped Angle (Fig. 11) and the Wavy Line (Fig. 12) beaded, practically the outline of every shape used in Bent Iron Work is given. The Spiral Twist



FIG. 8.

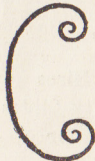


FIG. 9.

will be noticed later on, as it is a special and somewhat more difficult form to make.

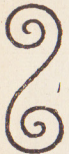


FIG. 10.



FIG. 11.

FIG. 12.



CIRCLES.

To form a Circle first take a pair of compasses and draw one (the exact size which is wanted) on a piece of paper. Unless it is very small, it will be found that the Iron can be bent without even the use of instruments. Any irregularity can soon be smoothed over with the aid

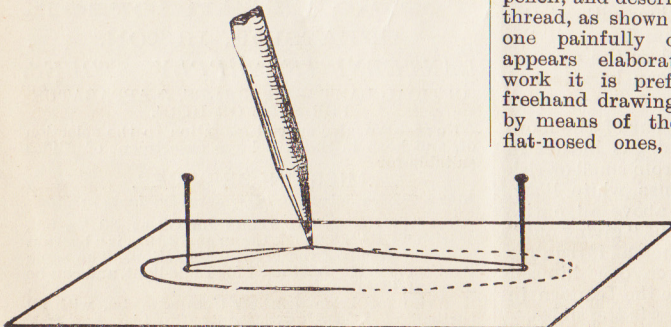


FIG. 15.

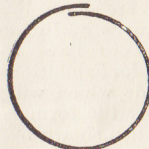


FIG. 13.

of the heavy Pliers. A Circle can be made without the end crossing, as in Fig. 7; or one end may overlap as in Fig. 13. In either case care must be taken to let the joint be covered by the Collar-band which binds the Circle to some other part of the ornament.

OVALS.

In forming an Oval, if the reader desires to have an exact Ellipse of a definite size, he should describe it on a piece of paper in the following geometrical way (see Fig. 14). A B

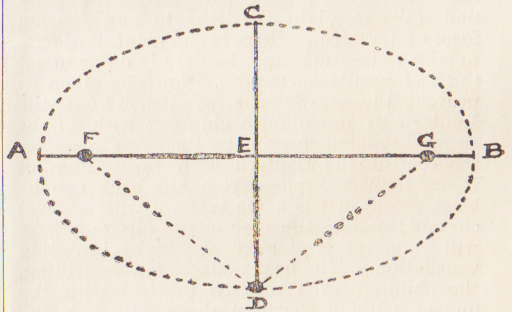


FIG. 14.

is the required length, and C D the width. Bisect A B, and draw C D at right angles to it, letting C E equal E D. Take the size A E with the compasses, and with D as a centre, mark off points F and G on the line A B. Thus D F and D G will equal A E and E B. Drive pins into the paper at points D, F, and G, and tie a piece of thread firmly round all three. Remove the pin D, then take a sharp pointed pencil, and describe the Ellipse by means of the thread, as shown in Fig. 15. All this reminds one painfully of Euclid, and the process appears elaborate; but for any important work it is preferable to trusting solely to freehand drawing. Work the Iron into shape by means of the heavy Pliers and the long flat-nosed ones, frequently laying it on the paper to see that the curves are turning out correct. For small Ovals elliptical exactness is not a vital point, but for such articles as Cabinet Photograph Frames, a geometrical form greatly enhances the appearance.

C CURVES.

C curves are the most common forms in Bent Iron Work, and although all on one principle can be of endless varieties, as Fig. 16 helps to shew. Before any ornament is attempted, the reader should make sure that he can turn out a C curve. Hold the piece of Strip Iron firmly with the left hand, either with the large Pliers or with the flat-nosed ones. Allow less than an inch of the Iron to project; then take the small round Pliers and turn the curve. Gradually let more Iron out, and keep turning all the time till a satisfactory spiral is formed. Reverse the strip and form a curve at the other end. This done, take the long flat-nosed Pliers and work away till both ends are similar, and till the whole curve has a graceful form.

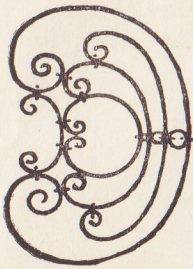


FIG. 16.

It is almost impossible to describe the method further. The great secret of success lies in the rapid movement of the Pliers. Slow work invariably produces a stiff-looking line. In turning the end of a C curve, much depends on the amount of Iron allowed for working on. However, practice is the only guide, and no definite rule can be laid down, as there are three considerations to be noted—(1) the size of the C, (2) the general severity of the curve, and (3) the tightness of the end spirals. With small tight work very little Iron must be exposed to the Pliers. (In passing, it may be remarked that closely-turned ends seldom look well.) With open curves, unless a good deal of material be allowed, the upshot is stiffness and lack of grace. In all this hours might be wasted in trying to give hints, whereas ten minutes usefully spent in the actual work will shew the reader at once what is wanted.

S SCROLLS.

S scrolls are perhaps hardly so often used as C curves, but are none the less important. They are seldom made with both spirals alike, the upper end (as in Fig. 17) being smaller than the lower. This however depends entirely on the ornament. The method of work is similar to that of the C curves, except of course that the second scroll is turned in the opposite direction from the first. When both ends have been formed, the general curve of the figure may be trained into shape by using the heavy and the long-nosed Pliers.

When curves are made from a full-sized drawing, care should be taken to cut the strips of Iron the exact length. This can be done by testing the size with a bit of paper. This point is important, for when a curve is completed and found to be either too large or too small, it cannot be altered without the whole work being undone; whereas if the Iron be the correct length, and only the scrolls at fault, the remedy is simple.



FIG. 17.

V ANGLES.

V-shaped figures give no difficulty; but where Iron has to be bent to a very acute angle, it is advisable to heat it red-hot, as otherwise it might crack.

A gas jet will be found most useful for this, as it is usually the middle, and not the end of a piece of



FIG. 18.



FIG. 19.

Iron, which has to be heated. The V should then be pressed close, by using the Vice or the large Pliers. Double and treble angles (Figs. 18 and 19) are often wanted, but are easily made.

WAVY LINES.

The Wavy Line pattern (Fig. 12) is more troublesome than actually difficult to form. It is stated that an analogy may be found in the washerwoman art, with regard to the dressing of frills, but this being quite outside the Bent Iron department, practical use of the illustration cannot be made here. The work is done with round-nosed Pliers. Hold the Iron strip and bend the first curve. Turn the Pliers half round and bend the second. Proceed in this way till the wavy line is completed. Some touching up, stretching out, or compressing may afterwards be required, but will give no difficulty.

When the reader can make these forms just described to his tolerable satisfaction, what he next requires is a knowledge of the various methods of fixing; but these shall be left for another chapter.

(To be continued.)

BENT IRON WORK.

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Pliers, round and flat-nosed,
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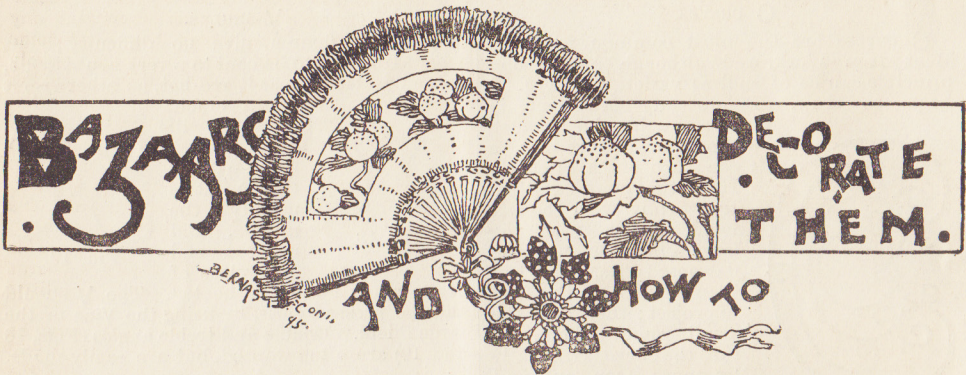
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CHAP. II.—PRELIMINARY ARRANGEMENTS. THE OPENING CEREMONY.



F Stalls and their manner of decoration the next two chapters will deal, but meanwhile a few further hints must be thrown out regarding all preliminary arrangements for the Bazaar.

When such matters as the date, hall, etc., have been definitely fixed upon, the Bazaar should be well advertised in all the local papers. The advertisements should be as imposing as the circumstances will permit. Much naturally depends on the local scale of charges, and on the amount of money which it is safe to spend. Advertisements should not be of an extravagant length, nor should they err on the meagre side. A little knowledge and a good deal of care in drawing up will soon guide those in charge to strike a happy medium. Care should be taken to state clearly to whom subscriptions and articles for sale are to be sent, and to give all other necessary information. It is also well that the Secretary should prepare a short paragraph notice, giving full particulars as to the charitable object in view, which may be inserted in the papers as an item of news. This must be carefully written, as it is not desirable to let it bear a self-laudatory or advertising air. It should be drawn up in that calm moderate tone of journalistic impartiality which a tactical Secretary will know how to adopt.

The question as to payment for admission will naturally have been settled at one of the earlier Committee meetings. The sum is regulated entirely by the class of Bazaar which is being held, and the extent of patronage which may be anticipated. As a rule nothing can beat the well-tried *Shilling*; this should be the charge up till a certain hour in the evening, when a reduced figure may be announced. In speaking of money

matters a word of warning may here be given. In many instances it seems customary to have a "clearance" on the last evening of the Bazaar; that is to say, the Stall holders—anxious to realize as much as possible, and to leave little or nothing unsold—reduce their prices, and permit numerous articles to be purchased for a mere trifle. This is a serious mistake, affecting not only the particular Bazaar in question, but the whole system, and the purpose for which Bazaars are instituted. In large towns, those who take an enthusiastic interest in all Bazaars which are organised can tell us that there are many people who put in an appearance only on those last evenings, and whose sole idea—one far removed from charity—is to "drive bargains." Thus the natural desire on the part of Stall holders to gather in a few odd sovereigns merely encourages a pernicious evil. Bazaars are not auction sale rooms. The prime object in buying articles at them is to benefit some charity, and it is obviously unfair to the benevolent donors of any goods if these are given away at a reduced price.

About three weeks before the opening of the Bazaar some striking and artistic posters should be printed and well displayed throughout the town and district. If it is possible to have these of a pictorial nature their success will be much greater. No heavy expense need be incurred as there is not any necessity for having them very elaborate. Something novel and simple is much more effective than any startling display of typographical extravagance. While the Bazaar is open, half a dozen Sandwich men might be sent out to parade the more fashionable streets. With a little trouble and a mere trifling outlay those heroes could be effectually arrayed in some cavalier costume, or in the particular fancy style (if any) which the Bazaar is supposed to represent. In addition to posters, small window bills are necessary. These may be of a similar nature, but on a reduced scale. They should also be well distributed, and should grace all the tram-cars, if the town has the good fortune to possess such luxuries of travelling. Neither posters nor bills should be spared. They should be scattered broadcast. The difference in cost between getting five hundred and one thousand copies

printed is hardly worth consideration, and if a larger number will attract a greater crowd the balance will be amply covered.



All Stall arrangements will be left in the hands of the Sub-Committee for the purpose. The number will depend on the hall accommodation, but it is usual to have six Stalls besides one for refreshments. The number of assistants at each Stall should be strictly limited. Young ladies and girls are very enthusiastic in offering their services, and when clad in some fancy and attractive garb they greatly enhance the scene, but in reality too many hands hinder rather than assist, and at the outset it is well to fix on a certain number which will be sufficient, and no more, for each Stall. A badge of distinction should be adopted and worn by all members of Committee and Stall holders. In every case this is advisable, as the persons thus decorated are easily recognised as officials when any questions have to be asked.

The Refreshment Stall very often presents a formidable difficulty. Light refreshments are always necessary and are constantly in demand, but as they entail much trouble and afford little profit it is better to offer some local confectioner the privilege of supplying all refreshments, on consideration of his paying down a nominal sum. In this case, however, it is desirable to have a clear understanding as to the prices which are to be charged.

Raffling is now seldom permitted, and where expensive goods are offered for sale some other means must be adopted for the disposal of them. There are several ways of doing this, but these will be referred to in a future chapter. Matters as to Band arrangements, the circulation of complimentary tickets and other small questions which arise as the work proceeds, may safely be left to the Sub-Committees in charge.

The opening ceremony must be carefully arranged, as it is highly necessary that this semi-formal performance should pass off without any serious hitches. The writer has seen some amusing blunders on these occasions, chiefly owing to lack of thought and arrangement beforehand. The awkward part is to know what to do *after* the Bazaar is opened! In all probability the carriage of the lady or gentleman who has discharged this function has been sent away and may not be back for an hour or so. To prevent dilemmas of this sort, the best way out of the difficulty is to provide an easy luncheon after the opening ceremony. This can be undertaken by the confectioner in charge of the Refreshment Stall, and need give little trouble to the Committee members.

The preliminary arrangements may now be considered as practically complete, and it will be necessary to refer to the Decorations, and the cheapest and most effective way of carrying these out.

(To be continued.)



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SPECIAL OFFER TO ANNUAL SUBSCRIBERS.

ST. PAUL'S CATHEDRAL.

An illustrated description of a remarkable Design for a Fretwork Model of St. Paul's Cathedral will be found in last week's issue. We propose to present a copy of this elaborate and strikingly original Design to everyone who sends postal orders for 6/6 for a year's subscription to *Hobbies*. The subscriber will thus receive by post every week for one year a copy of *Hobbies* with the usual Weekly Presentation Design, the value of which will never be less than threepence, and as a special present the Design for the model of St. Paul's, the price of which is half-a-crown. Any weekly subscriber who may wish for a copy of the St. Paul's Design can obtain one on sending a postal order for 2/6 to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The offer to annual subscribers necessarily applies only to those sending their subscriptions direct to the Publisher at this office.



PHOTOGRAPHY

for Amateurs

NOTES OF THE WEEK.



THE following method of cleaning a lens is followed by Mr. Seed, an American gentleman of wide experience in Photography. He says:—First spread upon a table a clean sheet of paper, take your lens carefully apart, dust with a camel hair brush each lens on both sides, then take a clean graduated glass, pour into it two ounces of distilled water, one ounce of alcohol, and three drops of nitric acid; mix well, and with a tuft of filtering cotton, dipped in this solution, rub the lens on both sides; polish with clean chamois which is kept for this purpose only. After the lenses are all polished, before putting together wipe out carefully the brass tube, then dust each lens with the brush—don't blow on them—and put together. We give this note because it is very likely that readers of *Hobbies* may, some of them, go in for bargains, and lenses are often sold very cheap at auction sales. There is a good deal of chance about such purchases, but sometimes a lens, the mounts of which are black and dirty, turns out to be a very perfect instrument.

Oil Magic Lanterns are of course a necessity, and to keep them in such a condition as to give the best light possible is often a matter of some difficulty. New wicks must be carefully lighted and trimmed before using, all air spaces must be kept free from dirt and draughts, and the wire gauze of the lamp must be perfectly clean in order to allow a proper current of air to pass to the wicks. The oil reservoir should be filled just before being used, and emptied when the lamp is extinguished. The oil soon vaporises, and not only does the vapour deposit upon the outside of the lamp, but the oil, having lost a considerable proportion of its illuminating property, will give but a feeble light. To put it shortly, to be successful with an oil lantern it is necessary to have (1) a clean lamp, (2) well trimmed wicks, (3) fresh oil, (4) perfect air supply, (5) even flame, and (6) a steady hand and even temper.

Those who take up Photography for a hobby are too fond of experimenting with plates, developers, toning solutions, &c., &c. Those

men, who as amateurs and professionals have made their mark, settle on good formulæ and stick to them. Mr. Paul Lange, Ex-President of the Liverpool Photographic Association, uses the following:—

STOCK SOLUTION:

Common Washing Soda	...	2 ozs.
Water, boiled	...	16 ozs.
Ammonium Bromide	...	20 grains.

To develop half plates take $\frac{1}{2}$ ounce of above solution made up to 2 ounces with water, adding to it from 3 to 5 grains of dry pyrogalllic acid—this is for instantaneous work. For ordinary time exposures less pyro is required. Mr. Lange has made many most beautiful negatives, and has the most unique Lantern Slides of any man in the kingdom.

Mr. Watson Hirst, the President of the York Photographic Society, quite recently delivered a lecture upon "Lantern Slide Making," and shewed good results upon "Alpha" plates. With this brand of plates a very pleasing range of tones, or colour, is possible, and an even wider range is possible by the use of a toning solution of sulphocyanide of potassium and gold—colours ranging from a greenish black to a bright red were shown to be possible. These slides are most effective when projected on the screen.

A member of the Rotherham Photographic Society, Mr. J. Leadbeater, has turned his "hobby" of Photography to account in photographing lightning, and thus describes his method of working:—Any ordinary camera may be used. His lens was a rapid rectilinear, working at $f/11$, and an ordinary plate. He holds his camera in the hand, and so soon as the storm gathers and is seen approaching, the camera is pointed in the direction where the flash of lightning is most likely to be visible; the lens is uncapped and immediately after the flash re-capped. Mr. Leadbeater has had several of his photographs approved by the Royal Meteorological Society, and caused some astonishment by projecting side by side, on the screen, a photograph of a flash of lightning and a painted Lantern Slide, forty years old, which was the then accepted pictorial interpretation of lightning. In this case the new was truer than the old.

"That 'hardy annual,' the Stanley Show, is advertised to be held in November, opening on the 22nd, and remaining open until the 30th. Following 'ancient custom' there will be in connection with it a Photographic Exhibition under the management of Mr. Walter Welford, editor of the *Photographic Review of Reviews*. There are many classes and many prizes; all but one class are open to amateur and professional alike. The judges are to be Mr. Bernard Alfieri, Mr. A. Horsley Hinton, and the Rev. F. C. Lambert. All these gentlemen took up Photography as a hobby within the personal knowledge of the writer. The two first have turned their hobby to account, having joined the ranks of professional Photographers with, we believe, pleasure and profit to themselves. Mr. Lambert is an authority on Photography, a gifted and pleasant writer who has contributed at different times to most of the Photographic journals of the day. We well remember his early efforts, and are quite certain that many readers of *Hobbies* could surpass them.

The Hackney Photographic Society will shortly hold their Annual Exhibition. We understand that it will be opened by the Earl of Crawford.

What to wear when being photographed is still a burning question of the day. Mrs. Ward, joint editor with her husband, Mr. H. Snowden Ward, of the *Photogram*, gives it as her opinion that the greatest number of sitters are utterly ignorant as to how materials, colours, and styles of costumes will appear in the finished portrait, and the operator is blamed for what is, as a rule, not his fault. It is well to avoid very positive patterns, such as large plaids, checks, wide stripes, and much jet or other glittering trimming or jewellery. Sharp contrasts in materials, trimming, or style of cut, are, says Mrs. Ward, a decided detriment to a pleasing portrait, and as a rule the tone of colour should harmonise with the sitter's complexion and hair. Glistening silks are difficult to light well, as is any material which does not lend itself to soft folds. Dead lustre silk, soft woollens, crapes, fleecy tissues, and similar materials are always effective.

Mrs. Ward might have given a word of caution as to new dresses. Ladies are rarely at their ease in a new gown—or frock we think the smart people now call them. Go to be photographed in the comfortable homely dress that your husband and children like you best in; or if the prospective sitter has not a husband, and is not the happy mother of a family, let her consult her own feelings as to comfort and not fashion. The same remarks apply to the opposite sex. How stiff and uncomfortable a man looks in a new frock coat, the *fin de siècle* mode, and how much better we all like to see him in that home coat which has long since had all the stiffness knocked out of it. Depend upon it, Photographs would be much more valued, be truer portraits, if this precious question of "what shall I wear" were not considered quite so much; at all events, never wear a new dress, a new coat, a new hat, or even a new pair of shoes. Not that the shoes would be photographed, but that twinge which they are giving your particular corn is registered in the features, and, depend upon it, is for ever copied by the camera.

PRIZE Competitions

It is our intention that all Competitions which will be announced from time to time in this column shall be decided by the skill or ingenuity of the Competitors, and not be in any way dependent on chance. Prizes will be given for Articles of Fretwork, Carving, etc., Designs, Sketches, Photographs, Essays, and numerous other subjects which will be stated in due time. The Prizes offered will take the form of Cash, Fretwork Machines and Outfits, Cameras, and other articles.

FRETWORK.

We hope later on to offer a valuable Prize for the best Fretwork Model made from the St. Paul's Cathedral Design which we are presenting to annual subscribers, and which was fully described last week. Meanwhile we offer Three Prizes for the best Midget Photograph Frames made from last week's Presentation Design:—

First Prize, A Treadle Fretwork Machine, with Nickel Plated Tilting Table, Dust Blower, and Emery Wheel.

Second Prize, A Finely Nickel Plated and Polished 14-inch Hand Fretsaw Frame.

Third Prize, One Gross of the best Fretwork Saw Blades.

The choice of wood, method of cutting, and all matters relating to the actual work are left entirely to Competitors. The Frames, for example, may either be polished or left plain. All Frames should be packed securely, in a cardboard box if possible, and must have the name and address of Competitor clearly written on a label which must be securely attached to the Article itself. Frames sent in for Competition will be returned, if desired; for this purpose a fully addressed and stamped label must be enclosed. In no case can Articles be returned unless sufficient stamps are sent to cover postage. Parcels should be marked "Frame," and must be received at our office not later than November 23rd.

PHOTOGRAPHY.

We will give every month a prize of Ten Shillings for the best Photograph, not to exceed 7½-in. by 5-in., and Five Shillings for the second best. The choice of subject is left entirely to the Competitor. Photographs cannot be returned, and we reserve the right to reproduce any of them in *Hobbies*, if thought desirable. Photographs for Competition will be received up to the last day of each month, and those for the first Competition must be sent to our office not later than November 30th, marked "Photo."

LANTERN SLIDES.

For the best Pen and Ink Sketch of a set of three original humorous Magic Lantern Slides we will give Ten Shillings, Five Shillings being awarded to the second best. The subjects are left entirely to Competitors. Sketches should be full size, and should be drawn in Pen and Ink only. The Prize Sketches, if of sufficient merit, will be reproduced in *Hobbies*. Mark "Slides," and send in by December 7th.

BAZAARS.

Two Prizes of Ten Shillings and Five Shillings are offered for the best suggestions for a Bazaar Side Show. In deciding this Competition the novelty and practical character of the suggestions will be chiefly taken into account. Paragraphs must not exceed 200 words in length, and must reach us by November 16th. The Envelope should be marked "Bazaar."

NOTICE TO COMPETITORS.

All Articles, Sketches, etc., for Competition should be addressed to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The name and full address of Competitor must in every case be sent.

NOTE:—No correspondence can be entered into with Competitors, and all awards made will be final.



In these columns we shall be pleased to answer questions on all subjects coming within the scope of *Hobbies*, but it must be understood that, as space is necessarily limited, we cannot attempt to reply to those queries which are of purely personal interest. In no case can we reply to enquiries by post. We shall always be glad to hear from our readers, and to receive suggestions with regard to *Hobbies*. All communications should be marked "Correspondence," and must be addressed to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C.

FRETWORK AND CARVING.

EDWARD.—Hints as to the colouring and shading of Inlays in due time be given in our series of Fretwork Articles.

CARVER.—Naturally every hobby cannot be dealt with at once. A series of articles on Wood Carving is in preparation, and we hope to present some Weekly Carving Designs before long.

W. W.—White Chestnut is the best substitute for Holly. In most cases it is preferable, as the wood may be obtained in better condition and in wider boards. Sycamore is also a good white wood for Fretwork.

S. M. A.—As a rule articles of Fretwork look much better when left unvarnished. This is particularly the case if the wood be white. A coat of bleached shellac dissolved in alcohol will, to a great extent, prevent the article from getting soiled.

C. B.—A simple means of straightening warped wood is as follows:—Damp the concave side very slightly with warm water, or hold it over the steam from a boiling kettle; then hold the convex side before a fire till the wood is straight, lay it on a table or on the floor and place a heavy weight over it. The wood will then dry flat.

HOBBIES THAT PAY.

E. J.—Young Squirrels may be trained to perform in a barrel cage, and at Bazaars should easily sell for half-a-guinea each.

G. EVANS.—We fear you will not find heavy apples such as the culinary or cider sorts profitable. These only pay when grown in large quantities for their special uses.

A. L. B.—A champion pedigree dog of any popular type is worth from £50 to £100. The sum of £1,600 was refused for the champion rough-coated St. Bernard. By buying pedigree puppies there is a good chance of rearing a champion, and much money can be made by keeping stud dogs and breeding for exhibition.

METAL WORK.

PLIERS.—Small scratches and bruises caused by Bent Iron Work tools may be rubbed with ordinary linseed oil; with more serious cuts apply a little boracic acid, which acts as an antiseptic. Use a stout glove if the Pliers hurt your hands.

W. L.—We quite agree with you that Bent Iron Work is not so popular amongst amateurs as it might be. The chief reason, no doubt, is the lack of suitable Designs, but this want is steadily being met. We had anticipated your suggestion, and from time to time a Bent Iron Work Design will be presented with *Hobbies*.

ELECTRICITY.

BATTERY.—We propose next week to begin a series of articles on Electricity, which will be specially adapted for amateurs who take up the Science as a hobby.

STAMP COLLECTING.

VERITAS.—The question of a Stamp Exchange for the use of readers of *Hobbies* is already engaging our attention, and possibly in next week's issue we may be able to say something definite.

V. L. L.—Handle your stamps carefully, and take care that no one with soiled fingers is allowed to touch them. The stamp you enclose is genuine, but is simply a brute of a specimen; and in these dainty days torn or dirty stamps are not worth the paper they are stuck upon.

E. A. B.—The rare English "V.R." stamp is worth from £15 to £20, and we are hardly surprised that you have never seen one. Doubtless many other readers of *Hobbies* will be in the same position. The simplest description of the "V.R." is that it is exactly like the old penny black English stamp which every young collector possesses, except that in the top corners are seen the letters "V.R." instead of the usual Maltese crosses. The illustration given here shows only the top quarter of this stamp, for, were we to illustrate the whole, the myrmidons of Somerset House would swoop down upon *Hobbies* "like a wolf on the fold." The law permits us to give illustrations of colonial or foreign stamps, but draws the line at English issues.



PHOTOGRAPHY AND LANTERN SLIDES.

SMITH.—Never work a cylinder without a regulator, and always open the valve very slowly and steadily.

W. RUSSELL.—You have not properly centred your lime. When this is done you will have no "eclipse" as you call it.

CAMERA.—You can get a Hand Camera for taking negatives Lantern Slide size, but it is best to have a Camera for quarter plates.

SHAKESPEARE.—"The Seven Ages of Man," as told in "As You Like It," will make a capital subject for a series of Lantern Slides.

J. C. JAMES.—You may not make a Lantern Slide from illustrations in books or illustrated papers without permission. This permission is very generally accorded.

MONTGOMERY.—Outline Pictures should be drawn in Indian ink on smooth white paper, and then copied in the Camera. The negatives will make excellent Lantern Slides.

MISS CAMPBELL.—We shall be very pleased to criticise your work, and make no charge, but you must send stamped address label for the return of the Slides.

SENEX.—The negatives you send us are much too dense, you might reduce them: for which purpose make up a bath of three ounces of water and fifteen drops of a solution of per-Chloride of Iron.

Items of Interest.

SPIDERS' WEBS.—Size for size, it would appear that a spider's web is considerably stronger than a bar of steel. An ordinary spider's thread will support the weight of three grains, while it is calculated that a steel thread of the same size would support rather less than two grains.

DEATH OF A FOOTBALL PLAYER.—David Wykes, a prominent member of the Wolverhampton Wanderers' Football Team, died at his home, at Walsall, a few days ago, after a brief illness from typhoid fever. Wykes, who was a member of the team when the Wanderers won the Association Cup in 1893, played recently against Stoke, but was then very unwell.

NEWS FROM VESUVIUS.—It appears that within the last six months Vesuvius has added no less than a hundred cubits to its stature. An entirely new cone has been built up by the constant showers of lava. This has naturally changed the appearance of the mountain, which now terminates in a sharp peak instead of the slightly rounded top as before.

BLINDFOLD CHESS.—This is rather beyond the scope of the average chess player who takes up the game as a mere hobby, but he may be interested to hear of a remarkable exhibition which was given by the well-known Mr. Blackburne a few nights ago at the City of London Chess Club. The player who was blindfolded had no less than eight opponents. Play began in the afternoon and lasted for fully six hours, the performance being watched throughout by a large number of enthusiastic spectators. The final score was heavily in favour of the blindfold player, Mr. Blackburne actually securing four wins and four draws, and thus not suffering a single loss.

THE TELEPHOTOGRAPH.—The latest advance in the transmission of images by wire is the Telephotograph, a new Swedish invention, based upon the remarkable variability of the electric resistance of selenium under light of varying intensity. An electric current passing through a selenium point varies with the lights and shadows through which the point passes, and produces in an incandescent lamp at the other end corresponding variations, which trace out a picture identical with that at the despatching station.

MEASURING SOUND.—Mr. Hiram Maxim proposes in *Engineering* a new class of measurements to establish a standard of sound, or rather of noise, for the guidance of courts of law and the protection of manufacturers. Noises are complained of as being nuisances, and injunctions are applied for against manufacturers on statements which are often exaggerated and imaginary, the accuracy of which it is difficult to test. Experimenters in acoustics should take the matter in hand and determine an absolute measure of sound. A modified phonograph, on which the wave of the ordinary street sounds should be recorded and compared with the wave of the noise complained of, so that the increase of sound caused by the machinery could be measured at a glance.

Photographic Hints for Amateurs.

MEDICAL PHOTOGRAPHY.

There are several useful suggestions and rules adopted by a surgeon of experience:—(1) The apparatus must be arranged in some place to which you can bring the patient. (2) No attempt should be made to set up the camera by the bedside, the preparations will only excite and exhaust the patient. (3) Do not attempt to Photograph if the patient is very seriously ill. (4) The best results are obtained from well-marked deformities. (5) In Photographing skin diseases good results may be obtained by flash-light. (6) Isochromatic plates should invariably be used. (7) Except in very exceptional cases a very rapid plate need not be used.

DEVELOPER FOR BEGINNERS.

An enthusiastic teacher gives the following developer as one to be generally adopted.

No. 1.

Pyro, dry	...	...	3 grains.
Water	...	...	1 ounce.

(In the water dissolve 8 grains of sulphite of soda immediately before use.)

No. 2.

Liq. Ammonia	...	...	4 drachms.
Pot. Bromide	...	...	30 grains.
Water...	...	...	2 ounces.

(Add 3 to 4 drops of No. 2 to each ounce of No. 1.)

DEVELOPMENT.

In using pyro, bromide, and ammonia as a developer, density is increased by adding pyro; if, however, more than six to eight grains to the ounce of developer are used, pyro causes fog and decreases density. To accelerate development and bring out detail add ammonia, but in no case should more than five minims to the ounce be added, as few plates will stand this, although the quantity of bromide may be increased. Beyond a certain point bromide ceases to control development, and assists in forming fog, commonly called "chemical fog."

EXTEMPORISED DARK-ROOM LAMPS.

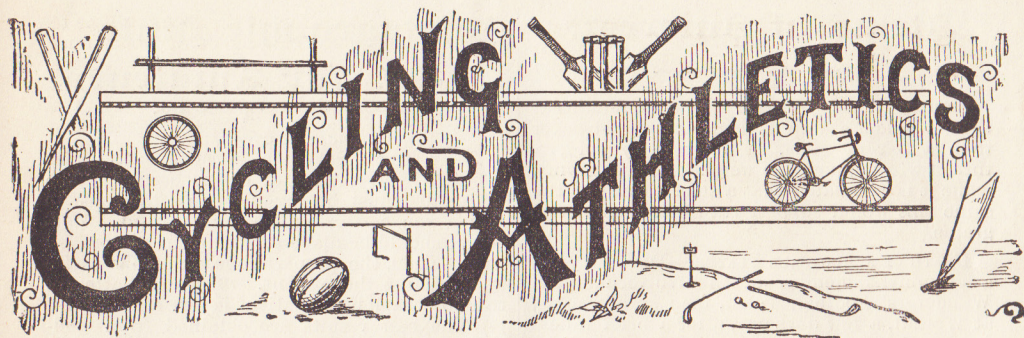
A lamp may be made out of a bandbox. All that is wanted is a night-light, a candle, and a piece of ruby or yellow fabric. Here is another:—Place a light inside a tumbler and round it put the fabric, fitting the top into a tin funnel. A Bicycle lamp is the quickest and handiest temporary Dark-room Lamp, all that is required to make it perfectly safe is to cover the glass with fabric.

CLEANING NEGATIVES.

The backs of dry plates are sometimes splashed with emulsion. To clean them use paper and a little salt, but don't try this dodge on your negatives.

PHOTOGRAPH IN A CIGAR-HOLDER.

Some time back "Magic Cigar-Holders" were offered for sale, which produced Photographs. The holder contained between the cigar and the mouthpiece a sheet of prepared paper, on which, on exposure to the action of the cigar smoke, an image gradually became visible. This image was brought by the vapour of ammonia contained in the smoke, and which had the further property of colouring the Photograph black.



NOTES ON SPORT.

RIDERS who are old enough to remember the early days of cycling will not forget the strong hostile reception with which the first knights of the wheel were on all hands received.

This was particularly the case with the upper classes. Everyone indeed who could afford to ride a horse affected a most withering contempt for the rider of the horse of steel. The "Society" papers and nearly all journals which circulated among the well-to-do naturally supported the opinions of their patrons, and sneered at the bicycle with all their respective might.

Cyclists were bullied, persecuted, and put upon in all directions, with the natural result that the wheelmen combined to resist the hardships they had to endure. They in some measure succeeded in improving their position. Meanwhile the machine itself, by solid merit and steady improvement in construction, has come slowly but surely to the front.

With the "Highly titled few" the cycle is without doubt a craze, a fashion of the hour, which will in a short time pass away in favour of the next new thing. We think, however, that a considerable percentage of what we call "Society" will not be so eager to discard the pleasures of the wheel. The thing is too good to be lost so soon, and the lessons learned in Battersea Park and at the various fashionable riding schools will by no means be all thrown away. As a society movement, bicycling must expect to enjoy but a butterfly existence, but for all that the wheel has "come to stay," even with the aristocracy.

The "Cycle Parade" is a curious development of our most popular pastime. For the benefit of those who have never witnessed one of these affairs we may say that a parade is in reality a procession of cyclists and cycles through the streets of a town. The machines are decorated in every conceivable way and illuminated with Chinese Lanterns of every form and variety imaginable. Generally speaking some most grotesque effects are produced, and as this kind of affair naturally lends itself to mimicry and foolery of every description, it will be quite unnecessary for us to go further into details. Parades have been held in all sorts and sizes of

towns, but the dimensions which this sort of thing has attained in the larger cities is quite remarkable. At a recent parade in Birmingham, the procession of wheelmen was two miles long, and for some little time ordinary traffic on the "line of march" had to be suspended, while the route was kept by mounted police. A quarter of a million people are said to have witnessed it. The ostensible object of these entertainments is to secure money for the benefit of some charity, and in one or two cases fairly substantial sums have been collected.

Professional Football still retains its hold, and the intense local patriotism and enthusiasm which is such a prominent feature of the game seems curiously enough to lose none of its force from the fact that the leading teams are not composed of "local" men at all, but of players brought from all parts of the country. The fact that these players are bought, sold, and are transferred from one club to another for solid considerations, and that they are also paid a regular weekly wage for their services, are points which the average football spectator does not trouble his head about at all. He sees the best football that money can buy certainly, and he shouts for "Everton" or "Aston Villa" or "Sunderland" as if the whole credit of his town or district were dependent on the result of the match. The Aston Villa have made the best start for the season and occupy the proud position of "Top of the League" so far, Everton, Bolton Wanderers, Sheffield United, Stoke, and Sunderland, being their nearest opponents.

It was unfortunate for England that Mr. C. C. Bredin was unable to go to New York to represent the London A.C. in the international competitions. On the time test Bredin must have won the "Quarter" at New York, and would also have rendered a very good account of himself against Kilpatrick in the half mile. To atone for his inability to go to America when he was so badly wanted, Mr. Bredin sent over a special invitation to Messrs. Kilpatrick and Conneff asking them to come to England at his expense and run a couple of matches with Bacon (the English miler) and himself. The American cracks have replied regretting their inability to make the trip, so we must give up all hope of having our revenge for the present at any rate. We hear with regret that Mr. Bredin is about to retire from the path, as he proceeds very shortly to Ceylon.



No. 2. "APHRODITE" BRACKET.

Painting, Sculpture, and Wood Carving have produced many representations of the Goddess of Love, and there is no reason why a figure of the mythical beauty should not be found in a Fretwork article.



In this Bracket, Aphrodite (or, as she is better known as, Venus) takes up a graceful position in the stern of her light craft with its characteristic prow, while Cupid plies the oars. Below, there is a conventional treatment of dolphins which greatly helps to carry out the spirit of the Design.

In cutting out there are no difficulties to be encountered, but the figure must be taken slowly and sawn with great care and exactness. When the Saw-blade runs over the solid wood to convey an idea of drapery it must never be

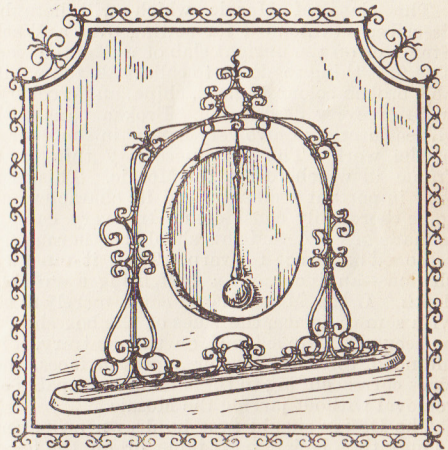
allowed to travel too far, or the result will be to weaken the article. The choice of wood must rest with the worker, as much depends on the background against which the Bracket will eventually be placed. As a rule the lines of a figure shew better on a light wood, but this matter must be determined by the colour of wall-paper.

In the sail of the skiff provision is made for a bevelled Mirror, the size of which should be $5\frac{1}{2}$ in. \times $4\frac{1}{4}$ in. The Mirror may be rebated in the usual way and held in position by means of thin veneer or stout paper glued to the back, or a narrow Overlay border might be cut out and made to serve the purpose of a regular moulding. The thickness of wood may be $\frac{3}{16}$ in. or $\frac{1}{4}$ in. according to the variety used.

[Additional copies of this Design may be had, price 3d. each, on application to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The Presentation Supplements will be given during the current week of publication only, and will not be supplied with back numbers of *Hobbies*.

Bevelled-edge oval Mirrors for the "Aphrodite" Bracket, size $5\frac{1}{2}$ in. \times $4\frac{1}{4}$ in., may be had from the Editor, price 1/6 each, securely packed and post free.]

No. 3. TABLE GONG STAND.



The above sketch is a miniature of the full-sized Pattern for Bent Iron Table Gong Stand, which will be given away with each copy of next week's issue of *Hobbies*.

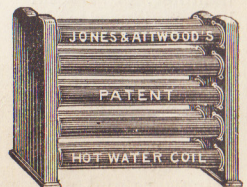


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Decorative use of Waste Material.

WORKING IN MOSAIC.

THIS work is as old as civilisation itself. It has always been in favour when other branches of Art have been cultivated, and is a class of work where beautiful effects can be obtained by simple means. Of course no one would seek to construct a Mosaic picture from information derived solely from reading, and the purpose of this article is merely to explain the mechanical methods to be employed. The reader who can already paint a face will be able to produce that face in Mosaic. The reader who cannot paint, and who has no knowledge of Art, may yet be able to form a Mosaic which shall be of practical service. The materials employed for setting—that is the Tiles—vary greatly in character. If they are to form a Pavement it is essential that they be thick and strong, and for such work it would be useless to employ Tiles made from fragments of crockeryware, as they would inevitably get ground to powder.

The class of Mosaic which will here be described is intended for setting over a Wash Stand, or on the upright slab of a Mantelpiece. The first thing to do is to collect all the available broken coloured glass, china, and crockeryware of every description. Broken pans with glazed interiors prove very handy in the course of the work. The next necessary thing is a frame in which to set the Mosaic. This is a very important accessory, and its character has to be thoroughly considered. In every case it is made of wood, and this should be thoroughly seasoned so as not to warp. Then it must be shallow—an inch and a half being a suitable depth. If the Mosaic is to come merely flush with some surface, the sides of the box should be securely fastened. If, on the contrary, it is intended to show two or more surfaces, the sides corresponding to these must be capable of removal without jarring the Mosaic.

The Design should first be drawn on paper. It may then be laid on a table, or on the floor, and Tiles placed on its surface so as to reproduce it roughly in Mosaic.

For the sake of convenience in writing it was assumed that the Tiles were already made. They are prepared thus—a chip hammer, or fracture hammer is used to chop the pieces of crockery to the size required. A sharp tap is required to make a clean break. Glass must be cut with a glazier's diamond. The edges both of the chinaware and glass may be smoothed with a

file. The under surface of the Tiles should now be roughened. In the case of chinaware this may readily be done by means of a drill, taking care to use no pressure. As soon as the glaze is pierced attack its edges, and in this manner make small roughened surfaces.

When the Tiles are completed they are ready for setting. For this purpose different materials are used by different workers. By some plaster of Paris, by others Portland cement, by others a mixture of the two, and by a few a bed of glue. Plaster of Paris will give a good result if the work is done very carefully, but it is a substance that will not admit of careless treatment. When it is used, a piece of wood and a heavy square weight are necessary. The wood must just fit the short diameter of the frame in such a manner that it will go in without pressure, and yet leave no gaps at the sides. Place the wood upright in the frame about three inches from one end; against it place the iron weight. Mix some liquid plaster and fill to about three parts the lesser of the two spaces into which the frame is now divided, taking care that it runs into every corner. Now at once set the Tiles in this. It is better not to place them quite close together; they should be separated one from another by about the third of an inch. Lay on them a flat piece of wood and press to bring to a uniform surface. The piece of work carried so far must be left until set.

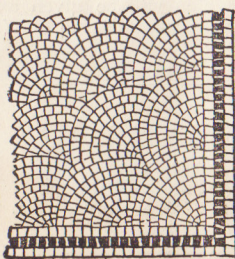
Personally, the writer never had any difficulty in removing the board used for fencing in the work, but this may be the result of some unconscious knack. Many however complain that the wood sticks to the plaster. To obviate this, wrap the wood in paper so that the plaster shall not anywhere touch it. The sticking of the paper to the plaster will not matter as it can easily be removed afterwards.

When the frame is full and the plaster set, remove the fencing boards, pour in plaster where they have been, and set in the Tiles whose place they have occupied; then fill all the interspaces and allow to dry. When firmly set the plaster and the roughened or chipped edges of the Tiles may be disguised with enamel paint.

The most unlikely objects come in handily for Mosaic work. The round glass stoppers of soda water bottles, children's marbles, and the peculiar conical projections found inside some wine and beer bottles all prove useful.



Ornamental Mosaic.



Plain Mosaic.

FOR Sale, and Exchange.

*. We intend each week to set apart a page for the benefit of those readers who may desire to sell, buy, or exchange any articles. The charges for advertisements (prepaid) will be sixpence for every twelve words or less, name and address inclusive, and one halfpenny for every additional word. Single letters, initials and figures are each counted as a word; but undivided numbers (as 152), and prices (as 10s. 6d.) count as only one word each. In every case the name and address of the advertiser must be given for publication, and we cannot at present undertake to supply a private name or number and receive replies to advertisements at our office. All advertisements must be accompanied by remittances, otherwise they cannot be inserted. Whenever possible, payment should be made in Postal Orders, and not stamps. Letters should be marked "Advt.," and must be addressed to the Editor, *Hobbies*, Bouverie House, Salisbury Square, London, E.C.

NOTE.—Trade Advertisements can only be inserted in this page at the rate of one shilling per line.

Carving. The best complete outfit for beginners. The only carded outfit for Wood Carving in which the Tools are of English manufacture. Price 5/- Post free 5/6. J. H. Skinner & Co., H Department, Dereham.

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Hobbies that Pay.

* Before going into any details on the profitable handling of all subjects that will come under the title "Hobbies that Pay," it may be stated that an Expert has been specially arranged with to give the readers of *Hobbies* advice and information of a practical nature about Poultry, Bees, Rabbits, Dogs, Horses, Pigs, Cage Birds, and Fancy Stock; also on all matters relating to Land, Allotments, Gardening, Trees, Plants, Flowers, Fruit, Vegetables, and on all home and outdoor Hobbies that are of a profitable nature. Replies to queries will be made as generally interesting as possible. It may be as well to say here that we intend to develop the practical side of these and other paying hobbies, and that we shall spare no expense in securing the best practical assistance for the benefit of our readers.

(NON-SITTERS CONTINUED).

N dealing with the Houdan in last week's issue, only a passing reference was made to some of the non-sitting breeds of Fowls which amateurs will find it profitable to keep. Several of these are excellent, each securing a foremost place in some particular point. The Hamburg may be cited as an example. Its eggs are certainly small, and it frequently shows an inclination to stray, but it is an everlasting layer. The Andalusian, on the other hand, gives a good-sized egg, but does not lay a sufficiently large number to give it full rank. The Minorca cannot be relied on in winter, unless it be well sheltered and kept warm. In this way it possesses a serious drawback, as it necessarily gives extra trouble and requires more attention. Were the Houdan to become extinct, possibly the Leghorn would rank as the best of all non-sitting breeds. This Fowl has the advantage of being particularly hardy, and stands all cold and exposure well. It is anticipated that White Leghorns may shortly have to give place to Buff ones—that is, when the latter variety is steady in colour. The reason for this is that a White Fowl, being easily soiled, has invariably to lose a few points when quality is being estimated. It would make an interesting and useful study for some enthusiastic hobbyist to find out what opening there may be for introducing new varieties in Buff, Grey, and Brown, from the present White and Black Fowls, and thus obtaining the best qualities in all points, colour included. Such a phase of development will be fully considered under "Ducks," a subject which will be dealt with shortly.

SITTERS.

The Dorking was described last week as the ideal sitter. This position, however, it may not long retain. Recently, amateur enterprise has been keen in the endeavour to find a better, and many Poultry breeders think that one has been found. Even the Dorking has faults. Its five-toed foot is very inconvenient when it has to be placed in a nest full of eggs. Still it is a fine

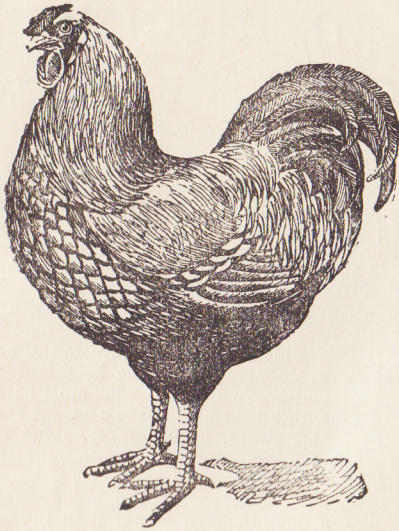
Fowl, and one hesitates to dethrone it for some modern rival. The Dorking was the prototype of the Orpington, the Wyandotte, and the Plymouth Rock. It set the scale in magnitude of frame, and in the large proportion of meat to bone. In these points it is still unrivalled, but of late it has become very delicate. The truth is that it is dying out for want of fresh blood, as may be seen from the fact that each year the stock raised is gradually becoming smaller and weaker.

UTILITY AND PRACTICE.—In considering the relative value of the most prominent sitting breeds from the "profitable" point of view, it may be well to look around and see what is to be the real aim in practice when Poultry as a paying hobby is taken up. Egg producing is not here being dealt with; but such specialities as Poultry flesh for profit, eggs and flesh combined, rearing and breeding for the purpose of selling sittings of eggs at fancy prices and for exhibiting, and cross breeding to obtain new types and varieties, all come in for consideration.

POULTRY FLESH FOR PROFIT.—The best Fowl for this purpose should possess the following points:—A large frame, small bones, white or light-coloured legs, a white skin, and a plump and meaty breast. It must be easy to rear, and should quickly reach to full size and form. A large eating capacity is not an advantage, but the Fowl should be one that will fatten quickly when put under special diet. Cochins and Brahmas are examples of heavy eaters; they remain a long time in the lanky stage, feather slowly, and lay small eggs.

If Poultry flesh and egg producing are to be the combined pursuit, there are several breeds now in hand that cannot easily be surpassed.

THE WYANDOTTE.—This, the latest of modern breeds, is an importation from America. It has every good point which comes under the egg-and-flesh consideration except two—small eggs, and a yellow skin. It is a good layer; it sits well, but can readily be broken off; it is a rapid maturer, and possesses a meaty frame and full breast.



A Silver Wyandotte.

The Wyandotte is hardly seen to advantage in this sketch, but many of the points of a good market Fowl are shewn. Its distinguishing features are—colour, back and wings of a silvery white edged with black, breast mottled evenly black and white, and a red head and face. There are four toes on each foot, and the “rose” comb has a short drooping peak behind. The Hens of the breed are prettily laced and mottled all over. They have combs similar to the Cocks, but smaller. Improvements on the Silver Wyandotte are the Golden and the White. A Buff variety is being imported, and has already been welcomed with enthusiasm by judges and fanciers. The bird, however, is hardly yet acclimatised. The Wyandotte is a large Fowl, and one of its best points is that it can be quickly matured for the table.

THE ORPINGTON.—This is a good breed to meet with. The fancier who originated it in Kent is naturally reticent on the subject of its birth, but being black, and appearing now with a rose comb, and occasionally displaying a few feathers on its legs, it is not difficult to hazard a guess as to its probable parents. The Langshan and the Minorca would produce this breed, but it may also have a strain of the Black Hamburgh. What is of more importance to note, however, is that the Orpington is equal in frame and flesh to the Wyandotte, and is decidedly superior as a layer. The Fowl still “sports,” and its developments extend to varieties of White, and to both single and rose combs in Blacks.

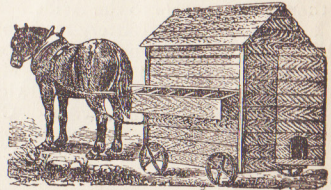
THE PLYMOUTH ROCK.—“Rocks” are now ubiquitous. They are well known as summer sitters, as layers of a goodly number of medium-sized brown shelled eggs, as fast growers after the first eight weeks from being hatched, and as rapid feeders. Like Orpingtons, they have many Langshan points, and can sometimes pass for clean-legged birds of that breed. They are very hardy, but require much exercise. As a fancier’s bird the Plymouth Rock gives considerable trouble in the way of mating and pairing. This is experienced all the more when it is desired to

rear birds for exhibition. The Fowl is large and heavy, and is not by any means a small eater.

THE LANGSHAN.—Among old pure breeds that come under the class of sitters, the Langshan is deservedly a favourite. During the time of its early popularity, it simply carried all before it as a table fowl. Its eggs are of a nice brown colour, but are small in size. Hardiness is its great point; and, coming as it did originally in the pure state from Chinese Tartary, the character for being hardy and able to “wade in the snow and seem to like it” (as some would remark) need not be wondered at.

THE COMING BREED.—Here now is a genuine chance for readers of *Hobbies*. There is no really perfect Fowl, no all-round useful bird—one that lays the largest eggs, has the finest frame and most fully developed breast, and that will consent to sit “to order” whenever required. It is not impossible to get such a Fowl. On the contrary it is quite possible to get one which, at a cost of one penny per week throughout the whole year, will yield an average of two hundred large eggs, will rear a brood of chickens, and one which, if killed at the age of six months, would weigh about eight pounds. Such a Fowl is wanted, and care and attention may secure it.

MANAGEMENT.—Poultry farming pays well to those who have some land and who can allow their birds a free range. Whenever possible, Fowls should be permitted to find their own food. By keeping them out on the land, be it grass, stubble, fallow, or under a crop such as turnips, they will secure nearly all their necessary food during a considerable portion of the year. A handful of corn at night—say a quart of oats for every twenty fowls, which is about the rate of one halfpenny each per week—will be sufficient to keep them in good health and in fast growing condition. Portable houses are invaluable for Fowls on the land. They may be built on wheels and moved by a horse or donkey, or they can be made with projecting handles and thus carried by two persons.



A Portable Poultry House.

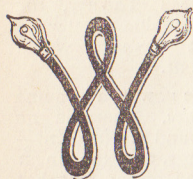
By employing them the Fowls have a chance of getting good exercise, and they are also useful in other ways—such as affording an opportunity for having the home runs cleared, and for putting away young Cockerels or Pullets by themselves.

At home, and when in confined runs, Fowls must always have exercise. A long narrow run partly covered and partly open to sun and air is necessary, and a lofty, dry, and draught proof house must be kept for the birds to roost in. Fresh air without draughts, plenty of clean food without cramming, variety of diet, fresh water and sweet green herbs daily, a dust-bath under cover, a heap of hard flinty grit and another of mortar always within reach, and above all the most scrupulous cleanliness about everything—these are a few of the more important points which must be kept in mind by the Poultry fancier who desires to make his hobby pay.

(To be continued.)

How to make an Electric Scarf Pin.

CHAP. II.—THE BATTERY.



HEN Accumulator and Scarf Pin have been satisfactorily made, the next matter to receive attention is the Battery; the most suitable for Accumulator charging is known as the Single Fluid Bichromate. This Battery will give a very powerful

current of comparatively short duration, and emits no noxious fumes.

First procure four glass or stoneware jars; 3-lb. jam jars will serve the purpose. Now obtain eight plates of Carbon $\frac{1}{4}$ inch thick, and four plates of Zinc $\frac{1}{2}$ inch thick; these must be cut of equal lengths and one inch less than the internal diameter of the cells. A piece of No. 18 copper wire must be soldered to the top corner of each Zinc plate.

To "amalgamate" the Zincs first place some Mercury in a shallow dish, and mix one part of Oil of Vitriol with nineteen parts of water, and pour this into the dish with the Mercury. Then take each Zinc plate, immerse it in the solution, and rub it quickly over with an old tooth brush so as to carry the Mercury all over each surface; this done, stand each plate on end to drain.

Now secure eight pieces of Mahogany or other hard wood, $\frac{1}{4}$ inch thick, one inch wide, and long enough to rest safely on the edges of the cell, and boil these in melted paraffin wax; this renders them impermeable to the Acids.

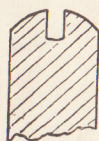
The Battery may now be fitted up. Take a pair of Carbons, one Zinc, and two pieces of Mahogany, and arrange these sandwich fashion, as shown in Fig. 1. C denotes the Carbons, W the Wood, and Z the Zinc. Four Binding Clamps must be purchased; these should be of a convenient form, as shown in Fig. 2, and there must be sufficient space between the jaws to admit the complete sets of elements. These Clamps serve two purposes: firstly,

to hold the elements together, and secondly, to make contact between the two Carbons. Care must be taken that the Clamps do not touch the Zinc plates. Now make the following mixture:—

Chromic Acid	...	3 parts.
Water	...	17 parts.
Sulphuric Acid	...	3 parts.

Dissolve the Chromic Acid in the water first, and then add the Sulphuric Acid; afterwards add one part of Chlorate of Potash. As the Sulphuric Acid will make the liquid hot, it must be allowed to cool before using; when quite cold fill each cell to about three parts with the liquid.

All portions of the elements which do not touch the liquid should be painted with melted paraffin wax, and each set of elements then placed in a cell. The Battery is now practically complete, all that is required being a stand and some arrangement to lift the plates out of the exciting solution.



This must be a box with the ends made about twice the height of the cells. Two $\frac{1}{2}$ -inch slots must be cut with a Fret Saw in the centre of these end pieces, as in Fig. 3, about one inch from the top. These form bearings for the hoisting axle.

Now get a piece of broom-handle about one inch longer than the box, and have it turned down to about $\frac{1}{2}$ -inch diameter at the ends. This turned part should be $\frac{1}{2}$ -inch long at one end and $1\frac{1}{2}$ -inch at the other. Cut a piece of wood for a handle, and fix on as shown in Fig. 4. Then cut eight pieces of stout

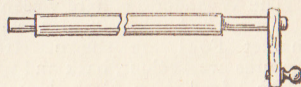


FIG. 4.

twine, connecting each from the crossbars W to the axle A in Fig. 5. These are used to draw the plates out of the solution when not in use.

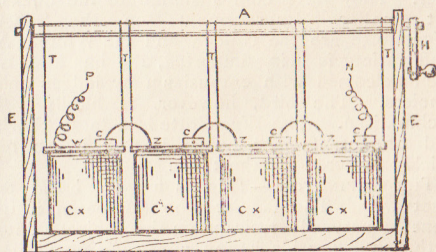


FIG. 5.

Fig. 5 shows the front elevation. B is the box, E ends, Cx cells, A axle, H handle, T twine, and W the cross bars.

The cells must now be coupled up in series, i.e., the Zinc of one cell to the Carbon of the next, as shown in Fig. 6. Z is the Zinc, C the Carbons, P the Positive pole, N the Negative pole.

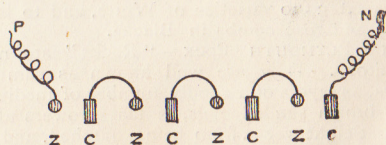


FIG. 6.

To "form" the Accumulator, connect the terminals of the Battery to those of the Accumulator for three hours; then disconnect the Battery and connect the terminals of the Accumulator to the lamp and let it discharge

itself; repeat this treatment for several days, but reverse the direction each time, until the lamp indicates that it will hold the charge. When it will do this mark the terminal of the Accumulator which was last connected with the Positive terminal of the Battery, and *always charge it in the same direction.* In discharging the Accumulator, never quite empty it—that is to say, if it be charged for two hours do not let it discharge for more than one hour and three-quarters.

If these directions have been carefully followed, the amateur will not only possess a very attractive ornament, but a Battery and Accumulator that can be used for a variety of other purposes.

One last word; if the amateur values the Accumulator which he has just made, he should not continually be making and breaking contact with the terminals, merely to make the sparks fly. The plates should always be drawn from the solution when the Battery is not in use.

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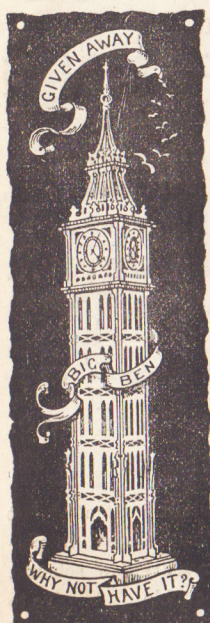
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